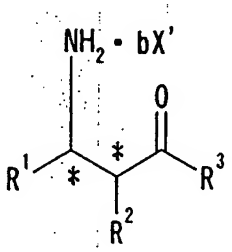
Amendments to the claims

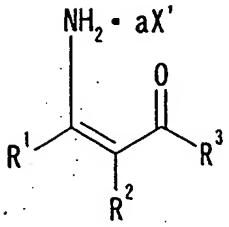
1. (Currently amended) A method for producing an optically active β-amino acid of formula (2),



(2)

[[,]] wherein b is 0 or 1; the symbol * shows that the carbon atom is a chiral carbon; R^1 is a hydrogen atom, an alkyl group, a substituted alkyl group, a cycloalkyl group, a substituted cycloalkyl group, an aralkyl group, a substituted aralkyl group, an aryl group, a substituted aryl group, ~~an aliphatic heterocyclic group, a substituted aliphatic heterocyclic group, an aromatic heterocyclic group, a substituted aromatic heterocyclic group,~~ an alkoxy group, a substituted alkoxy group, an aralkyloxy group, a substituted aralkyloxy group, an aryloxy group or a substituted aryloxy group; R^2 is a hydrogen atom, an alkyl group, a substituted alkyl group, a cycloalkyl group, a substituted cycloalkyl group, an aralkyl group, a substituted aralkyl group, an aryl group, a substituted aryl group, ~~an aliphatic heterocyclic group, a substituted aliphatic heterocyclic group, an aromatic heterocyclic group, a substituted aromatic heterocyclic group,~~ an alkoxy group, a substituted alkoxy group, an aralkyloxy group, a substituted aralkyloxy group, an aryloxy group, a substituted aryloxy group, an alkyloxycarbonyl group or an aralkyloxycarbonyl group; R^3 is an alkoxy group, a substituted alkoxy group, an aralkyloxy group, a substituted aralkyloxy group, an aryloxy group, a substituted aryloxy group, an amino group or a substituted amino group, X' is an acid, and R^1 and R^2 or R^2 and R^3 may be combined together to form a ~~ring~~ ring, provided that R^1 and R^2 are not a hydrogen atom simultaneously, provided that R^1, R^2 and R^3 are not substituted with a heterocyclic or heteroaryl ring, provided that R^1 and R^2 are not combined to form a heterocyclic or heteroaryl ring, and provided that R^2 and R^3 are not combined

to form a heterocyclic or heteroaryl ring, which comprises ~~subjecting~~ contacting an enamine of formula (1),



(1)

[[,]] wherein R^1, R^2, R^3 and X' have the same meanings as described above, and a is 0 or 1, ~~to an asymmetric hydrogenation~~ with hydrogen and a transition metal complex, to produce the optically active β-amino acid of formula (2).

2. (Currently amended) The method as claimed in claim 1, wherein ~~the asymmetric hydrogenation is carried out~~ the enamine of formula (1) and hydrogen are contacted in the presence of an acid.

3. (Currently amended) The method as claimed in claim 1, wherein ~~the asymmetric hydrogenation is carried out~~ the enamine of formula (1) and hydrogen are contacted in the presence of a fluorine-containing aliphatic alcohol.

4-5. (Cancelled)

6. (Currently amended) The method as claimed in claim ~~5~~ 1, wherein the transition metal complex is a complex of a metal which belong to the eighth group of the periodic table.

7. (Currently Amended) The method as claimed in claim ~~5~~ 1, wherein the transition metal complex has a chiral ligand.

8. (Original) The method as claimed in claim 7, wherein the chiral ligand is a chiral phosphine ligand.

9. (Currently amended) The method as claimed in claim 1, wherein ~~the asymmetric hydrogenation is carried out~~ the enamine of formula (1) and hydrogen is contacted in the presence of an acid and a fluorine-containing aliphatic alcohol.

10-12. (Cancelled)

13. (New) The method as claimed in claim 1, wherein the transition metal complex is represented by the formula (7):

$$M_mL_nX_pY_q \qquad (7)$$

wherein, M is a transition metal of the VIII group, L is a chiral ligand, X is a halogen atom, a carboxylate group, an allyl group, 1,5-cyclooctadiene or norbornadiene, Y is a ligand, and m, n, p, and q are an integer of 0 to 5.

14. (New) The method as claimed in claim 1, wherein the transition metal complex is represented by the formula (8):

$$[M_mL_nX_pY_q]Z_s \qquad (8)$$

wherein, M is a transition metal of the VIII group, L is a chiral ligand, X is a halogen atom, a carboxylate group, an allyl group, 1,5-cyclooctadiene or norbornadiene, Y is a ligand, Z is an anion, and m, n, p, q, and s are an integer of 0 to 5.